

REMARKS

Election

Applicant elects Class I identified by the Examiner without traverse, which includes Claims 1-18.

Claim Rejections – 35 USC §103

The Office Action rejected Claims 1-3, 5-7, 10-12 and 14-16 under 35 U.S.C. 103(a) as being unpatentable over Rothmund (U.S. Patent No. 4,459,247) in view of Evans et al. (U.S. Patent No. 4,585,848) and Leeper et al. (U.S. Patent No. 3,475,332). The Office Action stated:

Rothmund describes method for producing earplugs from polysiloxane. Polysiloxane is admixed with expanding agents and crosslinking agents (abstract). A typical siloxane is presented by a formula in col. 3, lines 15-24. It reads on instantly claimed silicone polymer. Fillers like oxide of silica are added (col. 6, lines 51-53). A crosslinking agent is also included, one of them is a peroxide (col. 2, lines 60-64).

Rothmund is silent about (claimed) fumed silica and microsphere agent.

Evans describes fluorosilicone rubber composition comprising (a) a vinyl-containing base polymer, (b) a platinum catalyst, (c) a crosslinking polymer (col. 2, lines 30-68). Composition is cured in a mold by heating. Fumed silica is added as a filler (col. 5, lines 59-62).

Leeper discloses a fire extinguishing composition comprising (a) finely divided carbon, silicon carbide and (b) inorganic bubbles (col. 1, lines 12-16). Effective bubbles are formed from soda-lime borosilicate glasses (col. 2, lines 62-65).

It would have been obvious (a) to enhance tensile strength and toughness of composition of Rothmund by including fumed silica and (b) to impart flame retardancy by including soda-lime boro-silicate. It is noted that though Rothmund discloses production of earplugs, the said teaching can successfully be utilized to prepare (claimed) composition for a synthetic cork. It is also obvious to add toasted oak dust for reinforcement, because it is cheap & easily available.

Claims 1-3, 5-7, 10-12 and 14-16 are not rendered unpatentable under 103(a) in view of the cited references because the Office Action improperly relies upon nonanalogous art to make the rejection. According to MPEP §2141.01(a), the examiner must determine what is "analogous prior art" for the purpose of analyzing the obviousness of the subject matter at issue. "In order to

rely on a reference as a basis for rejection of an applicant's invention, the reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the inventor was concerned." *In re Oetiker*, 977 F.2d 1443, 1446, 24 USPQ2d 1443, 1445 (Fed. Cir. 1992). *See also In re Deminski*, 796 F.2d 436, 230 USPQ 313 (Fed. Cir. 1986); *In re Clay*, 966 F.2d 656, 659, 23 USPQ2d 1058, 1060-61 (Fed. Cir. 1992) ("A reference is reasonably pertinent if, even though it may be in a different field from that of the inventor's endeavor, it is one which, because of the matter with which it deals, logically would have commended itself to an inventor's attention in considering his problem."); *Wang Laboratories Inc. v. Toshiba Corp.*, 993 F.2d 858, 26 USPQ2d 1767 (Fed. Cir. 1993); and *State Contracting & Eng'g Corp. v. Condotte America, Inc.*, 346 F.3d 1057, 1069, 68 USPQ2d 1481, 1490 (Fed. Cir. 2003) (where the general scope of a reference is outside the pertinent field of endeavor, the reference may be considered analogous art if subject matter disclosed therein is relevant to the particular problem with which the inventor is involved).

The Leeper reference is not analogous art to the subject matter of Applicant's claimed invention. Leeper teaches a fire extinguishing compound and is wholly unrelated to synthetic cork compounds. The synthetic cork compound of Applicant's invention is aimed at providing a substitute for natural cork. The cork compound eliminates many of the unfavorable characteristics of natural cork, while maintaining many of the favorable characteristics. The fire extinguishing agent taught by Leeper, on the other hand, is aimed at extinguishing metal fires. Leeper is neither in the field of Applicant's endeavor, nor is it reasonably pertinent to the particular problem with which the Applicant was concerned (i.e. providing a substitute for natural cork). Because there is no connection or link between the Applicant's invention and the

teachings of Leeper, the Leeper reference is nonanalogous art and should not be used to reject Applicant's claimed invention under §103(a).

The Office Action further fails to make a *prima facie* case of obviousness. To establish a *prima facie* case of obviousness, three basic criteria must be met. MPEP §2142. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

The first requirement for establishing a *prima facie* case of obviousness is not met because there is no motivation to combine the teachings of Leeper with Rothemund. Rothemund teaches a method for producing earplugs of foamed plastic. Leeper teaches a fire extinguishing agent for extinguishing metal fires. A person of ordinary skill in the art would not have looked to combine the teachings of Rothemund and Leeper to provide a synthetic cork compound. Rothemund does not contain any suggestion that it would have been helpful to look to a fire extinguishing agent for using a microsphere agent. In fact, neither Rothemund nor Applicant's invention suggest the desirability of fire retardancy. The statement by the Office Action that "[i]t would have been obvious . . . to impart flame retardancy by including soda-lime boro-silicate" is misplaced because fire retardancy is not a problem that Applicant's invention is directed at solving. Instead, the microsphere agent of Applicant's invention is directed to decreasing the

specific gravity of the resulting compound, which is believed to give the compound many of the characteristic properties of natural cork (Applicant's specification, page 12, lines 3-5).

The second requirement for establishing a prima facie case of obviousness is not met because there is no expectation of success associated with combining the Leeper and Rothmund references. Rothmund teaches a method for producing earplugs of foamed plastic. Leeper teaches a fire extinguishing agent for extinguishing metal fires. There is no suggestion in Rothmund that combining certain of the components for an earplug with a microsphere agent used in a fire extinguishing compound would yield a synthetic cork compound.

The third requirement for establishing a prima facie case of obviousness is not met because the prior art references when combined do not teach or suggest all of the claim limitations of Claims 1-3, 5-7, 10-12 and 14-16. Leeper fails to teach or suggest the microsphere agent in the amounts claimed in Claims 1 and 10. With respect to Claim 1, Applicant's claimed invention includes *a microsphere agent from about 5 to 50 weight percent*. The compositions taught by Leeper all use "bubbles" in an amount greater than 50 weight percent. With respect to Claim 10, Applicant's claimed invention includes *a microsphere agent of about 26.2 weight percent*. The compositions taught by Leeper all use "bubbles" in an amount greater than 26.2 weight percent.

Because there is no motivation to combine the teachings of Leeper with Rothmund, and because there is no expectation of success associated with combining Leeper and Rothmund, and finally because the prior art references when combined do not teach or suggest all of the claim limitations of the rejected claims, Claims 1-3, 5-7, 10-12 and 14-16 are allowable over Rothmund in view of Evans and Leeper. Since Claims 4 and 13 depend from Claims 1 and 10, it follows that Claims 4 and 13 are allowable over Rothmund as applied to Claims 1 and 10

further in view of Sullivan et al. (U.S. Patent No. 5,652,287). Accordingly, Applicant respectfully requests that the rejections of all claims under 35 U.S.C. §103(a) be withdrawn.

Claim Rejections – 35 USC §112

The Office Action rejected Claims 8 and 17 under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The Office Action stated:

Claim 8 recites “high vinyl silicone polymer”. It is not known what is meant by “high” or low high is “high”.

The high vinyl silicone polymer is addressed in Applicant’s specification at page 13, paragraph 0027, which states “[t]he vinyl component of high vinyl silicone polymer is preferably 8-20 percent pendant vinyl with a preferred amount of 14 percent.” Applicant submits that a person of ordinary skill in the art would know the meaning of the word “high” in view of the Applicant’s description of high vinyl silicone polymer in the specification. Accordingly, Applicant respectfully requests that the rejection under 35 U.S.C. §112 be withdrawn.

CONCLUSION

Applicant respectfully submits that the pending Claims 1-18 are in condition for allowance and such a Notice is respectfully requested. The Examiner is invited to call the undersigned at the below-listed telephone number if, in the opinion of the Examiner, such a telephone conference would expedite or aid the prosecution and examination of this application.

Respectfully submitted,

DATE: 2/14/05

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